

# IROGRAN® A 95 H 4678

Thermoplastic Polyurethane Elastomer (Polyester)

Huntsman Corporation

Message:

IROGRAN A 95 H 4678 is a thermoplastic polyester-polyurethane for injection moulding applications. Additional characteristics of the product are short cycle times, good melt flows and easy demolding.

PERFORMANCE FEATURES

- Easy demolding
- Good melt flow
- High wear resistance
- Dynamically highly loadable
- Short cycle times

APPLICATIONS

For the production of technical parts, conveyor rollerswheels and rollers, suitcase wheels and rollers, bearing shells.

General Information			
Features	Fast Molding Cycle		
	Good Flow		
	Good Mold Release		
	Good Wear Resistance		
Uses	Conveyor Parts		
	Engineering Parts		
	Rollers		
	Wheels		
RoHS Compliance	Contact Manufacturer		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density <sup>1</sup>	1.23	g/cm <sup>3</sup>	
Melt Volume-Flow Rate (MVR) (210°C/10.0 kg)	78.0	cm <sup>3</sup> /10min	ISO 1133
Molding Shrinkage - Flow (Injection Molded)	0.40	%	ASTM D955
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240, ISO 868
Shore A, Injection Molded	95		
Shore D, Injection Molded	45		
Mechanical	Nominal Value	Unit	Test Method
Abrasion <sup>2</sup>	30	mm <sup>3</sup>	ISO 4649
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress <sup>3</sup>			ASTM D412, DIN 53504
100% Strain	13.0	MPa	

300% Strain	26.0	MPa	
Tensile Strength <sup>4</sup>			
Break	50.0	MPa	ASTM D412
Break	45.0	MPa	DIN 53504
Tensile Elongation <sup>5</sup> (Break)	500	%	ASTM D412, DIN 53504
Tear Strength <sup>6</sup>	120	kN/m	ASTM D624, ISO 34-1
Compression Set <sup>7</sup>			ASTM D395, ISO 815
23°C, 24 hr	25	%	
70°C, 24 hr	40	%	
Thermal	Nominal Value	Unit	
Melting Temperature	145 to 200	°C	
Injection	Nominal Value	Unit	
Drying Temperature			
--	100 to 110	°C	
Hot Air Dryer	80.0 to 90.0	°C	
Drying Time			
--	3.0	hr	
Hot Air Dryer	3.0	hr	
Dew Point	-30.0	°C	
Rear Temperature	175 to 195	°C	
Middle Temperature	175 to 195	°C	
Front Temperature	175 to 195	°C	
Nozzle Temperature	180 to 200	°C	
Processing (Melt) Temp	170 to 195	°C	
Mold Temperature	20.0 to 70.0	°C	
Extrusion	Nominal Value	Unit	
Drying Temperature	100 to 110	°C	
Drying Time	3.0	hr	
Hopper Temperature	25.0 to 40.0	°C	
Cylinder Zone 1 Temp.	165 to 190	°C	
Cylinder Zone 2 Temp.	165 to 190	°C	
Cylinder Zone 3 Temp.	165 to 190	°C	
Cylinder Zone 4 Temp.	165 to 190	°C	
Cylinder Zone 5 Temp.	165 to 190	°C	
Adapter Temperature	175 to 195	°C	
Die Temperature	175 to 200	°C	
NOTE			
1.	Injection Molded		
2.	Injection Molded		
3.	Injection Molded		
4.	Injection Molded		
5.	Injection Molded		

6.	Injection Molded
7.	Injection Molded

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